

IN THE CLAIMS:

Please cancel Claims 4 and 10 without prejudice or disclaimer of subject matter, and amend the claims as shown below.

1. (Currently Amended) A detection apparatus for detecting a target substance in a specimen, utilizing localized surface plasmon resonance, comprising:

a target substance detection element, including: a base; and a plurality of metal members to give rise to localized surface plasmon resonance, wherein the metal members are arranged as spaced apart from each other on a surface of the base ~~in a localized manner~~, and wherein each of the metal members has a loop section or a crossing section;

means for bringing the element into contact with the specimen; and

detection means for detecting the target substance captured by the element by irradiating the element with light emitted from a light source and observing transmission of the light.

2. (Previously Presented) The apparatus according to claim 1, wherein each of the metal members has a largest length between two edges that is found within a range not smaller than 10 nm and not greater than 1,450 nm.

3. (Previously Presented) The apparatus according to claim 2, wherein the largest length between two edges is found within a range not smaller than 50 nm and not greater than 450 nm.

4. (Cancelled)

5. (Currently Amended) The apparatus according to claim 1 [[4]], wherein any two adjacently located metal members are separated by a distance that is found within a range not smaller than 50 nm and not greater than 2,000 nm.

6. (Previously Presented) The apparatus according to claim 5, wherein the distance separating any two adjacently located metal members is found within a range not smaller than 150 nm and not greater than 1,000 nm.

7. (Previously Presented) The apparatus according to claim 1, wherein each of the metal members is made of a metal selected from gold, silver, copper and aluminum or an alloy of any of them.

8. (Previously Presented) The apparatus according to claim 1, wherein the base is optically transparent.

9. (Currently Amended) A detection apparatus for detecting a target substance in a specimen, utilizing surface plasmon resonance, comprising:

a target substance detection element, including: a base; and a metal film to give rise to surface plasmon resonance, wherein the metal film is formed on a surface of the base and has a plurality of apertures arranged ~~in a localized manner~~ as spaced apart from each other, and wherein each of the apertures has a loop section or a crossing section; means for bringing the element into contact with the specimen; and

detection means for detecting the target substance captured by the element by irradiating the element with light emitted from a light source and observing transmission of the light.

10. (Cancelled)

11. (Currently Amended) The apparatus according to claim 9 [[10]], wherein any two adjacently located apertures are separated by a distance that is found within a range not smaller than 50 nm and not greater than 2,000 nm.

12. (Previously Presented) The apparatus according to claim 11, wherein the distance separating any two adjacently located apertures is found within a range not smaller than 150 nm and not greater than 1,000 nm.

13. (Previously Presented) The apparatus according to claim 1, wherein each of the metal members comprises an outer frame structure having an aperture and an inner structure arranged in the aperture and spatially separated from the outer frame structure.

14. and 15. (Cancelled)

16. (Previously Presented) The apparatus according to claim 1, wherein the detecting means is an optical detecting means.

17. (Currently Amended) A method of detecting a target substance in a specimen by utilizing localized surface plasmon resonance, comprising:

a step of bringing a target substance detection element into contact with the specimen, the target substance detection element including: a base; and a plurality of metal members to give rise to localized surface plasmon resonance, wherein the metal members are arranged as spaced apart from each other on a surface of the base ~~in a localized manner~~, and wherein each of the metal members has a loop section or a crossing section; and

a step of detecting the target substance captured by the element when the specimen contains the target substance by irradiating the element with light emitted from a light source and observing transmission of the light.

18. to 21. (Cancelled)

22. (Previously Presented) The apparatus according to claim 1, wherein a target substance capturing body is fixed on a surface of each of the metal members.

23. (Previously Presented) The apparatus according to claim 22, wherein the target substance capturing body is an antibody.

24. (Previously Presented) The apparatus according to claim 23, wherein the antibody is an antibody fragment.

25. (Previously Presented) The apparatus according to claim 24, wherein the antibody fragment is a multi-specific multivalent antibody.

26. (Previously Presented) The apparatus according to claim 1, wherein each of the metal members has a thickness between 10 nm and 100 nm.

27. (Previously Presented) The apparatus according to claim 9, wherein a target substance capturing body is fixed on a surface of the metal film.

28. (Previously Presented) The apparatus according to claim 9, wherein the metal film has a thickness between 10 nm and 100 nm.